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Predicting delirium after a stroke

Stephen D J Makin,¹ Joanna Wardlaw²

Clinicians treating patients with stroke will be familiar with delirium: a syndrome characterised by the rapid onset of disorganised thought, inattention and altered level of consciousness, with a characteristically fluctuant course. Limited data suggest that up to a quarter of patients with stroke admitted to hospital are affected at some point.¹ In addition to being distressing for patients and carers, delirium doubles the risk of death and dependency.²

If diagnosed correctly, delirium can be treated by searching for precipitating factors such as infection, altering predisposing factors such as medication and taking steps to reduce sensory impairment.³ However delirium is easily missed, partly due to its characteristic fluctuant course, which is especially concerning as if delirium is not detected on admission to hospital, then the risk of death may be increased eightfold.⁴

Patients with stroke are particularly likely to have one or more of the known risk factors for delirium,⁵ including cognitive impairment, visual impairment, infection and dehydration. Diagnosis may be more difficult as a change in mental state may be missed in a patient with aphasia or other speech disorder.

Oldenbeuving *et al*⁶ describe a tool to predict the risk of developing delirium after an acute stroke. This is the first score to predict the risk of delirium specifically after stroke. As it is derived from a patient's age, NIHSS and the stroke subtype, it can be calculated on the day of admission.

This score has some limitations: first it cannot be applied to non-disabled patients, as patients discharged from hospital less than 2 days after stroke were excluded from the validation study. Second it may not be generalisable to other stroke units, as it was derived and validated in two stroke units in the Netherlands; as practice and resources may differ between countries, healthcare providers and regional and local hospitals, this score should be validated in other clinical settings before its widespread use.

The score may have a number of uses: it could identify those patients at particular risk of delirium for a future trial of preventative medication; it could aid nursing staff in ensuring that patients at risk of delirium are nursed in a easily visible space; and it could identify patients at risk so they may be screened for modifiable predisposing factors.

O'Hanlon³ described that the effective management of delirium is a complex process requiring input at many levels, including identification of the patient at risk. For this score to reduce the mortality from delirium, it will need to be adopted as part of a wider package including improved diagnosis and treatment.

However, if this score is introduced into routine practice without resources for screening, treatment and rehabilitation, it could become merely another page in the already lengthy bundle of paperwork that staff must complete when admitting a patient to a ward, which may reduce the time spent with patients. Future research is needed to identify effective interventions that improve the outcome for patients with delirium.

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Competing interests None

Provenance and peer review Commissioned; internally peer reviewed.



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